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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,240	08/31/2005	Yutaka Ozaki	26739U	9149
20529	7590	07/17/2007		
NATH & ASSOCIATES 112 South West Street Alexandria, VA 22314			EXAMINER CHOW, YUK	
			ART UNIT 2629	PAPER NUMBER
			MAIL DATE 07/17/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/532,240

Applicant(s)

OZAKI, YUTAKA

Examiner

Yuk C. Chow

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>02/02/07;02/21/06;04/22/05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 rejected under 35 U.S.C. 103(a) as being unpatentable over Adachi et al. (PGPUB US 2003/0011559 A1) in view of Antila (PGPUB US 2002/0113192A1).

As to claim 1, Adachi discloses an adjustment method of a display device, comprising: an LED emission step of performing PWM control independently on an LED of each of colors, red, green and blue (Fig. 1), in a unit emission period to cause the LED to emit light [0019]; a measuring step of measuring chromaticity of the light [0019]; a calculating step of calculating a difference between a measured value obtained in the measuring step and a target white balance value (Fig. 7, also see [0069]; and a duty ratio storing step of storing a duty ratio for the LED of each of colors in a storage when the difference calculated in the calculating step falls within a predetermined allowable range (see [0064], [0066], [0070], [0080] and [0082]).

However, Adachi does not teach the calculating step for a correcting step of correcting a duty ratio of a PWM signal on the LED of each of colors in the LED emission step corresponding to the difference obtained.

Antila discloses calculating steps (Fig. 7 and Table 1)f or adjusting the illumination system (Fig. 6).

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to incorporate calculating steps of Antila into adjustment method of a display of Adachi, because it improves adjustment stability as suggests by Antila [0069].

As to claim 2, Adachi discloses a adjustment method of a display device according to claim 1, wherein an adjustment of the display device is made in such a state that an LCD panel is attached to a front face of the LED and that the LCD panel is driven (see Abstract).

As to claim 3, Adachi discloses a adjustment method of a display device according to claim 1, wherein in the correcting step, the duty ratio of the PWM signal (Fig. 2) for the LED of each of colors is corrected in consideration of a distribution range of the chromaticity (Fig. 7) of the LED of each of colors ([0019]-[0020]).

As to claim 4, Adachi discloses a adjustment method of a display device according to claim 1, wherein the duty ratio is corrected independently ([0020]-[0024]) on LEDs of the same color corresponding to the difference obtained in the calculating step (Fig. 6), and independent duty ratios for the LEDs of the same color are stored in the duty ratio storing step (Fig. 6(S6) also see [0071]).

As to claims 5, 6 and 7, limitations within are same as in claims 1-4, therefore, same rejection applies.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuk C. Chow whose telephone number is 571 270-1544. The examiner can normally be reached on 8-6 M-TH E.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571 272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YC
07/09/2007


AMARE MENGISTU
SUPERVISORY PATENT EXAMINER